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Patent 0-06-172 (17660/US/04 CIP)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Inventor: Bron et al.  
Serial no.: 10/588,398  
Int. Filed: May 30, 2005  
Submitted to USPTO: August 3, 2006  
Title: SCORCH PREVENTION IN FLEXIBLE  
POLYURETHANE FOAMS  
Examiner: Melissa A. Winkler  
Art Unit: 1796  
Confirmation: 8382

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir/Madam:

**Response and Amendment**

This response is in reply to the final office action mailed on April 28, 2009.

**Claims amendment**

Please amend the claims as shown in the enclosed document. Claim 1 has been amended to specify that the composition of the invention comprises an epoxy compound having available epoxy groups (supported on page 3, line 20 of the application as filed). Similarly, claim 14 has been amended to specify that the method of the invention comprises the addition of an epoxy compound having available epoxy groups (supported on page 3, line 20 of the application as filed).

**Claims Rejection – 35 USC § 103**

Claims 1 - 7, 12 - 20, 25 and 26 are rejected as being unpatentable over Barry et al. (US 5,338,478), and further in view of Imai et al. (US 4,525,420). Furthermore, claims 8-11 and 21-24 are rejected as being unpatentable over Barry et al. (US 5,338,478), in view of Imai et al. (US 4,525,420), as evidenced by Horacek et al. (US 5,106,883). The Applicant respectfully traverses the Examiner's rejections.

Barry et al. relate to a stabilizer composition for preventing scorching in polyurethane foams containing flame retardants. However, Barry et al. do not teach a composition comprising an epoxy compound.

Imai et al. relate to polyurethane elastic yarns improved in spinning property, light resistance and chlorine resistance. Imai et al. relate to the optional use of a discoloration inhibitor, which is an **adduct** of bisphenol A diglycidyl ether and dimethylhydrazine (col. 5, lines 49-51). Imai et al. does not teach a composition containing bisphenol A diglycidyl ether. Instead Imai et al. teach an adduct of bisphenol A diglycidyl ether and dimethylhydrazine, which is not bisphenol A diglycidyl ether.

The Applicant would like to emphasize the critical difference that exists between a compound and adducts of said compound, and respectfully draws the Examiner's attention to the accepted chemical definition of the word "adduct":

"An adduct (from the Latin *adductus*, "drawn toward") is a product of a direct addition of two or more distinct molecules, resulting in a single reaction product containing all atoms of all components, with formation of two chemical bonds and a net reduction in bond multiplicity in at least one of the reactants. (International Union of Pure and Applied Chemistry, Compendium of Chemical Terminology)"

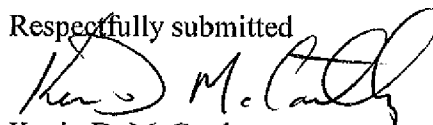
In view of the above definition, it would be obvious for a person skilled in the art, that the Examiner errs when alleging that Imai et al. teaches "a formulation in which bisphenol A diglycidyl ether is included". Imai et al. teach the addition of a discoloration inhibitor, which is an adduct of bisphenol A diglycidyl ether and dimethylhydrazine, *i.e.* a distinct compound which is neither bisphenol A diglycidyl ether nor dimethylhydrazine but the product formed by reaction of these two compounds. A person skilled in the art would clearly understand the structural and chemical differences between said adduct and the original epoxy compound. Furthermore, according to Imai et al., said adduct is formed prior to its incorporation into the polyurethane solution (the discoloration inhibitor is added, not the two components separately). Therefore it can be reasonably concluded that no epoxy compounds are added to the compositions taught by Imai et al.

For the sake of clarity, the Applicant has restricted the scope of claims 1 and 14 by specifying that the epoxy compound used has available epoxy groups.

#### Conclusion

It is believed that in view of the amendments effected and the above explanations, the instant claims define a novel and non obvious invention. Therefore, favorable reconsideration and allowance of the claims are earnestly solicited.

Respectfully submitted



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